*Ocean gales and storms July, 1925*

| Vessel | Voyage | | Position at time of lowest barometer | | Gale began | Time of lowest barometer | Gale ended | Lowest barometer | Direction of wind when gale began | Direction and force of wind at time of lowest barometer | Direction of wind when gale ended | Highest force of wind and direction | Shifts of wind near time of lowest barometer |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | From— | To— | Latitude | Longitude | | | | | | | | | |
| *North Atlantic Ocean* | | | ° ′ | ° ′ | | | | *Inches* | | | | | |
| President Harding, Am. S. S. | New York | Bremerhaven | 39 50 N. | 54 45 W. | 3d | 1 p., 3d | 3d | 29.72 | S | SSW., 7 | SSW.— | SSW., 8 | S.–SSW. |
| Eastern Victor, Am. S. S. | Antwerp | Philadelphia | 41 47 N. | 48 55 W. | 4th | 2 a., 4th | 4th | 30.00 | SW | S., 8 | SW | SSW., 8 | SSE.–SSW. |
| Parthenia, Br. S. S. | Avonmouth | Montreal | 52 43 N. | 50 02 W. | 7th | 4 a., 8th | 8th | 29.71 | W | SW., 8 | NW | —8 | SW.–NW. |
| Eibergen, Du. S. S. | Swansea | do | 54 40 N. | 31 08 W. | 10th | 11 p., 10th | 11th | 29.56 | SW | SW., 9 | W | SW., 10 | |
| Maine, Dan. S. S. | Port Talbot | do | 54 33 N. | 30 30 W. | 11th | 10 a., 13th | 14th | 29.70 | WSW | WSW | W | W., 8 | WSW.–W. |
| Lacuna, Br. S. S. | Liverpool | Curacao | 51 15 N. | 10 10 W. | 17th | 7 p., 17th | 20th | 29.61 | N | NW | NNW | NW., 9 | Steady. |
| Ashtabula, Br. S. S. | Sabine | Dublin | 49 06 N. | 12 09 W. | 18th | 11 p., 19th | 20th | 29.31 | NNW | NNW., 7 | E | NNW., 8 | NNW.–E. |
| Putney, Br. S. S. | Philadelphia | London | 49 38 N. | 7 50 W. | 25th | 11 p., 25th | | 29.81 | SW | SW., 4 | | NW., 9 | SW.–NW. |
| Vittorio Emanuel III, Am. S. S. | Cardiff | Philadelphia | 50 37 N. | 15 00 W. | 26th | 4 a., 26th | 27th | 29.77 | NW | —, 8 | NW | NW., 8 | Steady. |
| Conrad Mohr, Nor. S. S. | Shields | Baton Rouge | 50 35 N. | 0 19 E. | 27th | Noon, 27th | 28th | 29.48 | W | W., 10 | W | W., 11 | Steady. |
| Havana Maru, Jap. S. S. | Balboa | Baltimore | 12 25 N. | 78 12 W. | 27th | 6 p., 27th | 28th | 29.73 | | NE | | —, 7 | NE.–ENE. |
| Waban, Am. S. S. | Rotterdam | Galveston | 48 00 N. | 8 45 W. | 30th | 7 p., 30th | 31st | 29.84 | SW | SW., 7 | WNW | WSW., 8 | SW.–WSW.–WNW. |
| Vardulia, Br. S. S. | London | New York | 48 34 N. | 24 00 W. | 30th | 6 a., 30th | 30th | 29.82 | WSW | WSW., 8 | W | WSW., 8 | WSW.–W. |
| *South Atlantic Ocean* | | | | | | | | | | | | | |
| West Corum, Am. S. S. | Mobile | Montevideo | 30 08 S. | 38 45 W. | 3d | 4 a., 3d | 4th | 29.96 | SW | SW., 7 | SW | SW., 8 | |
| *South Pacific Ocean* | | | | | | | | | | | | | |
| Tahiti, Br. S. S. | San Francisco | Sydney, N.S.W. | 27 50 S. | 167 25 W. | 1st | Midt., 1st | 2d | 29.56 | NW | SW., 8 | W | SW., 9 | WSW.–SW. |
| Do | do | do | 36 12 S. | 175 20 W. | 22d | 10 a | 22d | 29.64 | N | N | NE | N., 9 | Steady. |
| Middleham Castle, Br. S. S. | Panama | Auckland | 34 50 S. | 157 W. | 12th | 4 p., 12th | 13th | 29.37 | NW | SW., 6 | S | SSE., 9 | W.–SW. |
| *North Pacific Ocean* | | | | | | | | | | | | | |
| Challenger, Am. S. S. | San Francisco | Seattle | 42 05 N. | 124 36 W. | 3d | | 4th | 29.90 | N | N., 8 | N | N., 9 | Steady. |
| West Prospect, Am. S. S. | Hongkong | San Francisco | 39 26 N. | 126 42 W. | 3d | 3 a., 5th | 5th | 30.02 | NW | N., 7 | N | N., 8 | Steady. |
| Lebec, Am. S. S. | San Pedro | Chile | 14 30 N. | 102 30 W. | 7th | 6 a., 8th | 8th | 29.61 | E | ENE., 10 | SSE | ESE., 10 | E.–SSE.–SW. |
| San Tiburcio, Br. S. S. | South America. | San Pedro | See text. | | 9th | 2 a., 10th | 10th | 28.90 | | | | —, 12 | |
| Angers, Fr. S. S.[1] | Marseille | Yokohama | 25 08 N. | 119 44 E. | 8th | | | 29.45 | | | | NE., 8 | |
| Thomas, U.S.A.T. | Honolulu | Guam | 13 27 N. | 138 E. | 9th | 11 p., 9th | 11th | 29.65 | E | E., 8 | S | S., 8 | |
| Africa Maru, Jap. S. S. | Yokohama | Victoria | 47 25 N. | 172 20 E. | 13th | 6 p., 13th | 14th | 29.78 | SSE | SSE., 8 | SW | SSE., 8 | SSE.–SE. |
| Edgemoor, Am. S. S. | Balboa | Honolulu | 15 30 N. | 108 50 W. | 17th | 10 p., 17th | 22d | 29.67 | W | WSW., 5 | SSW | S., 10 | SSE.–SW.–WSW. |

[1] Position of vessel approximate. Barometer—regular observation only—uncorrected.

## NORTH PACIFIC OCEAN

By WILLIS EDWIN HURD

For the fifth successive month the North Pacific anticyclone continued in a well-developed state, and in July was scarcely disturbed by cyclonic influences, except in the north, where the Aleutian low fluctuated along or slightly into its boundary.

Although the low was practically absent from Alaskan waters on several days, yet it covered the upper part of the Gulf of Alaska from the 7th to the 13th, and the Aleutian Islands on several days preceding and following these dates, so that, particularly in the neighborhood of Dutch Harbor, the average pressure was below the normal for the month.

Pressure data for July for the several island stations in the eastern part of the North Pacific, as well as for a few stations on the American coast, are given in the following table:

| Station | Average pressure | Departure from normal | Highest | Date | Lowest | Date |
|---|---|---|---|---|---|---|
| Dutch Harbor [1] | [2] 29.90 | −0.12 | 30.32 | 26th | 29.40 | 20th |
| St. Paul [1] | [2] 29.90 | −0.05 | 30.34 | 26th | 29.60 | 20th |
| Kodiak [1] | [2] 29.98 | −0.02 | 30.22 | 15th | 29.52 | 8th |
| Midway Island [1] | 30.09 | −0.01 | 30.20 | [3] 14th | 29.88 | 3d |
| Honolulu [4] | 30.02 | 0.00 | 30.09 | 12th | 29.89 | 15th |
| Juneau [4] | 30.03 | −0.02 | 30.33 | 15th | 29.60 | 8th |
| Tatoosh Island [5] | 30.11 | −0.04 | 30.28 | 1st | 29.89 | 21st |
| San Francisco [5] | 29.97 | −0.02 | 30.14 | 12th | 29.73 | 17th |
| San Diego [5] | 29.93 | −0.04 | 30.02 | 24th | 29.75 | 17th |

[1] P. m. observations only.
[2] 28 days.
[3] And other date.
[4] A. m. and p. m. observations.
[5] Corrected to 24-hour mean.

Hawaiian weather was largely fair, under the influence of the anticyclone to the northward. The total rainfall was again below the normal, the amount, 0.67 inch, having a departure of 0.52 inch. The prevailing wind continued from the east, though the highest velocity was from the NE. at the rate of 27 miles an hour, on the 28th. The mean temperature did not vary over 3° from the normal on any day.

Pressure continued low along the Asiatic coast, but no severe storm seems to have developed, although two known typhoons, of moderate depth, influenced the northern islands of the Philippines and the China coast during the period from the 7th to the 17th. Reports of the moderate gales occurring in this area will be found in the table.

The weather over most of the ocean was mainly serene. No gales exceeding 9 in force were reported except from the Mexican coast region, where two cyclones, one of known hurricane violence, occurred.

Of the three vessels that up to the present time have furnished reports of these tropical storms, two ran into the hurricane of the 7th to 10th. On the afternoon of the 7th the American S. S. *Lebec*, southward bound, encountered a heavy squall from the east, force 10, in 14° 30′ N., 102° 30′ W. The vessel continued in the gale until noon of the 8th, at which time its position was 12° 30′ N., 100° 45′ W. The master of the British S. S. *San Tiburcio*, Buenos Aires to San Pedro, rendered the following account of later developments of this storm:

July 9, 4 p. m.: Barometer 29.78 (this and following readings uncorrected). Freshening wind. Moderate to rough sea, overcast and showery.

8 p. m., latitude 15° 29′ N., longitude 111° 39′ W.: Vessel steering N. 21 W. (true). Barometer 29.72. Strong wind, with occasional violent squalls of wind and rain. Rough sea. Sky heavily overcast.

10 p. m.: Barometer 29.60. Wind increasing to strong gale, with frequent squalls of hurricane force and torrential rain.

Midnight: Barometer 29.47. Whole gale, with frequent violent squalls of hurricane force; extremely heavy rainstorm. Rough sea and moderate NE. swell.

July 10, 1 a. m.: Barometer 29.20, and falling very rapidly. Wind backing (west).

1.15 a. m.: Turned vessel around to SE. and reduced to half speed.

2 a. m.: Barometer 28.90. Heavy storm. Wind of hurricane force; torrential rain accompanied by vivid lightning. Rough sea. Moderate NE. swell.

3 a. m.: Barometer 29.15, rising rapidly. Wind backing to SW.

4 a. m.: Barometer 29.35. Weather clearing and storm abating.

4.15 a. m.: Turned vessel around to course N. 45 W. (true). Proceeded full speed.

6 a. m.: Barometer 29.66. Strong wind, occasional heavy squalls of wind and rain, overcast, rough sea and heavy swell.

The second storm occurred during the second decade of July. The American S. S. *Edgemoor* was involved in rough weather for several days. The observer's report follows:

From Cape Mala on July 11 to midnight of the 26th, over the Great Circle to Honolulu (near 21° N., 144° W.) we had continuous heavy rain squalls. Only twice during this time did we get our position from observation.

On July 17, with sky overcast, squally with light rains, the wind which had been moderate began to slowly increase in force and rain squalls becoming heavier, each day increasing until the 22d, when wind attained a force of 10. Weather had cyclonic indications. On the 22d hove vessel to, heading south for 10 hours, when about 6 p. m. breaks showed in clouds and wind diminished to fresh, blowing from SSE.

The more or less stagnant condition of the atmosphere in middle and higher latitudes resulted in the formation of an extraordinary amount of fog over the entire width of the ocean along the northern sailing routes. In some part of the long and broad area between 170° W. and 150° E. it occurred on every day of the month. The American S. S. *West Chopaka*, Japan to San Francisco, experienced fog from the 19th, in 46° 30′ N., 149° 38′ E., until the 28th, in 46° 29′ N., 146° 01′ W. Fog was also frequent along our coast, especially from San Francisco southward to the 25th parallel.

NOTE.—American S. S. *Ohioan*, New York to San Pedro, Capt. L. C. S. Smith, Observer R. M. Pierce, second officer:

July 15, 14° 39′ N., 95° 40′ W., at 1.40 p. m.: Encountered a whirlwind which removed wooden boat covers and blew water 20 or 30 feet in air. This disturbance had an anticlockwise rotary movement, and after passing about 4 miles to the westward formed two waterspouts. Barometer read 29.79. Temperature of water, 81°.

### ONE DESTRUCTIVE TYPHOON IN LUZON DURING JUNE

By REV. JOSÉ CORONAS, S. J.

[Weather Bureau, Manila, P. I.]

Although the northern part of Luzon suffered from heavy rains and floods in several days of June, yet only one destructive typhoon traversed the Philippines during this month causing great damage in several Provinces, but most particularly to the Provinces of Camarines Norte, Bulacan and Nueva Ecija. The Province of Camarines Norte, however, is the one that suffered most from the hurricane winds, floods and heavy rains, the barometer at Daet having fallen at least to 722.25 mm. (28.44 ins.) at 7:35 a. m. of the 24th. As the barograph did not work satisfactorily, we do not know just the exact barometric minimum.

Very probably the typhoon was formed near the Philippines on the 21st about 120 miles east of San Bernardino Strait or 80 miles to the east of northern Samar. It moved probably WNW. or NW. by W. at the beginning, then almost due west until it reached Daet. Fortunately, however, for Manila, after causing great destruction in Camarines Norte it took again a northwesterly direction, thus passing the center 30 or 40 miles to the NE. of Manila. At 6 a. m. of the 25th the typhoon was already in the China Sea to the W. of central Luzon.

The approximate positions of the center at 6 a. m. of the 24th, 25th and 26th were as follows:

June 24, 6 a. m., 123° 15′ long. E. 14° 05′ lat. N.
June 25, 6 a. m., 119° 05′ long. E. 16° 35′ lat. N.
June 26, 6 a. m., 113° 20′ long. E. 20° 05′ lat. N.

## DETAILS OF THE WEATHER IN THE UNITED STATES

### GENERAL CONDITIONS

A month of much stagnation in the movement of cyclones and anticyclones. The latter were fairly numerous for a summer month and apparently were offshoots from the North Pacific HIGH that first appeared in the Canadian Northwest or off the Washington and Oregon coasts. The usual details follow.

### CYCLONES AND ANTICYCLONES

By W. P. DAY

The number of highs charted during the month was considerably above the normal, and a large majority were of the so-called Alberta type. However, these high-pressure waves could generally be traced back over the North Pacific Ocean, but moving in higher latitudes they first appeared on our daily charts over the Canadian Provinces of Alberta or Saskatchewan. Their oceanic origin was further indicated by a large lapse in temperature at relatively high levels (2,500–3,500 meters), whereas a more typical high from the Canadian interior shows, at this season at least, an underrunning wedge of cool air with a strong inversion at 2,000–2,500 meters.

There were few well-defined storm areas. Precipitation occurred mostly in troughs of low pressure in connection with the increased laspe rate produced by the advancing side of the high-pressure areas previously mentioned.

### FREE-AIR SUMMARY

By V. E. JAKL, Meteorologist

The averages for the aerological stations given in Table 1 show that free-air temperatures over middle and eastern portions of the country ranged from somewhat below normal over the more northerly sections to about or slightly above normal at the most southerly stations. Approximately normal lapse rates prevailed, as shown by the fact that departures at all stations varied but slightly with altitude.

The departures in temperature show a fair correspondence with wind directions for the month. Wind resultants from kite (see Table 2) and pilot balloon observations show, within the range of altitudes for which temperature averages were obtained, that southwesterly and westerly winds were prevalent over Groesbeck and Due West, respectively, while elsewhere they were in